



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-4023; Directorate Identifier 2015-NE-29-AD]

RIN 2120-AA64

Airworthiness Directives; General Electric Company Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all General Electric Company (GE) CF6-80E1 turbofan engines with rotating compressor discharge pressure (CDP) seal, part number (P/N) 1669M73P02, installed. This proposed AD was prompted by reports from the manufacturer of cracks in the teeth of two rotating CDP seals found during engine shop visits. This proposed AD would require stripping of the coating, inspecting, and recoating the teeth of the affected rotating CDP seals. We are proposing this AD to prevent cracking of the CDP seal teeth, which can lead to uncontained part release, damage to the engine, and damage to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact General Electric Company, GE Aviation, Room 285, 1 Neumann Way, Cincinnati, OH 45215; phone: 513-552-3272; email: aviation.fleetsupport@ge.com. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-4023; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Herman Mak, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7147; fax: 781-238-7199; email: herman.mak@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2015-4023; Directorate Identifier 2015-NE-29-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory,

economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We received reports from GE of cracks in the teeth on two rotating CDP seals found during engine shop visits. We learned that the current borazon-nickel seal tooth coating oxidizes during engine operation, which could lead to reduced cutting action, overheating of the seal teeth, and premature cracking of the seal teeth. This condition, if not corrected, could result in cracking of the CDP seal teeth, uncontained part release, damage to the engine, and damage to the airplane.

Relevant Service Information under 1 CFR Part 51

We reviewed GE Service Bulletin (SB) No. CF6-80E1 S/B 72-0529, Revision 1, dated August 21, 2015. The SB describes procedures for stripping, inspecting, and replacing the seal tooth coating on the affected rotating CDP seals. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this document.

Other Related Service Information

We reviewed GE CF6-80E1 (GEK99376) Engine Manual, Revision 42, dated March 15, 2014. The engine manual describes acceptable repair procedures for the seal teeth.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require stripping, inspecting, and recoating the teeth on the affected CDP seals.

Costs of Compliance

We estimate that this proposed AD will affect 6 engines installed on airplanes of U.S. registry. We also estimate that it will take about 7 hours per engine to comply with this proposed AD. The average labor rate is \$85 per hour. Parts would cost about \$7,835 per engine. Based on these figures, we estimate the total cost of this proposed AD to U.S. operators to be \$50,657.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

General Electric Company: Docket No. FAA-2015-4023; Directorate Identifier 2015-NE-29-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all General Electric Company (GE) CF6-80E1 turbofan engines with rotating compressor discharge pressure (CDP) seals, part number (P/N) 1669M73P02, installed.

(d) Unsafe Condition

This AD was prompted by reports from the manufacturer of cracks in the teeth of two rotating CDP seals found during engine shop visits. We are issuing this AD to prevent cracking of the CDP seal teeth, which can lead to uncontained part release, damage to the engine, and damage to the airplane.

(e) Compliance

(1) Comply with this AD within the compliance times specified, unless already done.

(2) After the effective date of this AD, strip coating, inspect, and recoat the teeth of the rotating CDP seal, P/N 1669M73P02, in accordance with paragraph 3.C.(2) of GE Service Bulletin (SB) No. CF6-80E1 S/B 72-0529, Revision 1, dated August 21, 2015, as follows:

(i) For engines that have had stationary CDP seal, P/N 1347M28G02, repaired or replaced, strip coating, inspect, and recoat the rotating CDP seal at the next engine shop visit.

(ii) For engines that have not had stationary CDP seal, P/N 1347M28G02, repaired or replaced, strip coating, inspect, and recoat the rotating CDP seal at the next part exposure.

(f) Definitions

(1) For the purpose of this AD, part exposure is defined as removal of the compressor rear frame from the high-pressure compressor module.

(2) For the purpose of this AD, an engine shop visit is defined as the induction of an engine into the shop for maintenance involving the separation of pairs of major mating engine flanges, except that the separation of engine flanges solely for the purposes of transportation without subsequent engine maintenance does not constitute an engine shop visit.

(g) Credit for Previous Action

If you stripped, inspected, and recoated the CDP seal, P/N 1669M73P02, using the procedures in ESM 72-31-10, REPAIR 002 of the GE CF6-80E1 (GEK99376) Engine Manual, Revision 42, dated March 15, 2014, or earlier versions, then you met the requirements of this AD.

(h) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: ANE-AD-AMOC@faa.gov.

(i) Related Information

(1) For more information about this AD, contact Herman Mak, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7147; fax: 781-238-7199; email: herman.mak@faa.gov.

(2) GE SB No. CF6-80E1 S/B 72-0529, Revision 1, dated August 21, 2015 can be obtained from GE using the contact information in paragraph (i)(3) of this proposed AD.

(3) For service information identified in this proposed AD, contact General Electric Company, GE Aviation, Room 285, 1 Neumann Way, Cincinnati, OH 45215; phone: 513-552-3272; email: aviation.fleetsupport@ge.com.

(4) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on November 4, 2015.

Carlos A. Pestana,

*Acting Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.*

[FR Doc. 2015-28898 Filed: 11/16/2015 8:45 am; Publication Date: 11/17/2015]